

## ABSTRACT OF THE DISCLOSURE

A system and process for producing olefins from oxygenate, e.g., methanol or dimethylether, includes a fluidized bed reaction zone that provide contact between  
5 the oxygenate and a molecular sieve catalyst such as ZSM-34 or SAPO-34. Improved ethylene selectivity is realized when the oxygenate is stagewise injected into the fluidized bed at one or more locations along the axial direction of the fluidized bed reaction zone.

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